

# THE TYPEWRITER AS AN AUTODETECTIVE

It is More Difficult to Commit Forgery with a Machine Than It Is with a Pen.  
Sherlockian Methods of the Men Who Trace Crime Through Almost Microscopic Defects in Type.

the same  
the same  
the same

1. Disputed Words in Affidavit.
2. Written on Rileys Machine.
3. Written on Doctored Machine.

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A FORGER stands about as much chance of covering up his tracks by using a typewriting machine as an ostrich does of hiding his head into a hole in the sand, according to William J. Kinsley, who has had considerable experience in identifying typewriting and handwriting and examining disputed documents. Those to whom forgery is not a familiar art generally believe that one typewriter writes just about the same as another, even if the other is of different make. This is not so. In many cases it is easier to identify the work of a particular machine than it is to identify the pen writing of a particular person or to differentiate between a genuine and a forged signature.

A typewriter may be termed an autograph and an autodetective. The first because by studying the defects in the imprint of certain letters the expert can determine the approximate age of the machine and the manner of usage it has had, and the second because every machine has its own particular defects and a combination of six or more of these defects would not occur in two machines out of many millions.

Typewriters are frequently used to change the wording of wills, briefs, affidavits or other documents, and the person who trifles with the documents probably feels secure in the belief that so long as his handwriting does not appear he is safe. In February a lawyer of Herkimer, N. Y., was charged with having altered an affidavit, and the case hinged on six letters of the disputed words which had been inserted in the document in typewriting. These six letters were sufficient to not only establish that the words had actually been inserted seven years after the original document was made, but to identify the machine which was used.

**The Altered Document.**  
A man named Bennett brought suit against the Iron Clad Manufacturing Company, alleging that the company was illegally manufacturing a seamless metal basket which he had invented. In the lower courts the suit was decided against the company, but in the Appellate Division the decision was reversed. Another suit was brought. Bennett was sustained in the lower court, but the case was carried to the Appellate Division, where it practically devolved on the question as to whether or not the basket made by the Iron Clad Company was the same basket patented by Bennett.

In the affidavit of Mr. Gilman, manager of the Iron Clad Company, occurred the statement:—  
"Deponent admits that between September 30, 1902, and June 9, 1904, the defendant manufactured and sold seamless metal and pieced metal baskets for which it has never accounted to the plaintiff nor paid royalties." &c.  
When Mr. Edwin H. Rileys, the attorney for the inventor, rose to present his case he said to Justice Merrill:—  
"I do not think it is necessary to argue this case further, for you will see by the affidavit of Mr. Gilman that he asserts 'the same' basket patented and invented by Mr. Bennett has been sold by the Iron Clad Company and that no royalties have been paid therefor."

Lawyers for both sides and witnesses were astounded, and the Court's copy of the Gilman affidavit was immediately produced for inspection. In this copy the statement quoted above read:—  
"The defendant manufactured and sold 'the same' seamless metal and pieced metal baskets," &c.  
The copy of the affidavit held by the attorney for the Iron Clad Company did not contain the words "the same," and the question immediately arose, Had the

document held by the Court been altered and by whom?

Frank A. Schmidt, the District Attorney, had the words copied on the two typewriting machines in Mr. Rileys's office. One was an Oliver and the other an Underwood with medium Roman type. Enlarged photographs were made by Mr. Kinsley of the words "the same" as they appeared in the disputed document and as they appeared in the copies made on Rileys's two machines.

Examination showed that the body of the affidavit was written on a Remington machine in pica type and that the disputed words, "the same," were in Underwood medium Roman type.  
A glass plate ruled with horizontal lines was laid on the photograph of the three words "the same" which appeared in the questioned affidavit. The bottom two lines were one one-hundredth of an inch apart. The third line was two one-hundredths of an inch above the second and so on. Viewing the words through this glass it was seen that the type used for "the same" was taller than that used for sold. It also shows the lines at the bases of the letters to be thicker.

Photographs of the two words written on Rileys's machine and the two words in the affidavit were compared and Mr. Kinsley pointed out that in the seven letters of the words "the same" thirteen identical variations from the normal occurred in both copies.

The letter "t" slants to the left of the vertical at the same angle in both cases. This was determined by looking at the letters through glass plates ruled with vertical lines.  
**Detection by Type.**  
In both copies the upper serif of the letter "h" is broken off in a certain manner, and part of the lower right hand serif of "h" is broken off. The "e" was slightly broken just where the upper curve joined the straight horizontal line and there was a piece missing from the final stroke of the "e." The same letter sometimes printed above the base line and sometimes to the left of center. To determine this many sentences were written on the Rileys machine, and although for most letters the alignment was very good, the "e" almost always was a little out of plumb.

The letter "a" was too light in the lower part and much too heavy in the upper part for a normal type.  
The "a" was abnormally light in the right upper part and too heavy in the lower left part. Its finishing stroke was slightly defective. The first down stroke of the "m" was defective.

Then the question arose as to what were the chances of these same defects occurring in two different machines. Professor Virgil Snyder, of the department of mathematics of Cornell University, was called upon at the trial to calculate this.

Men familiar with typewriters know that not one machine in five hundred would have the same identical peculiarity in the same place in the same letter

Deponent admits that "between September 30th, 1902 and June 9th, 1904, the defendant manufactured and sold the same seamless metal and pieced metal baskets for which it has never accounted to the plaintiff nor paid royalties," but deponent denies that it is necessary for the plaintiff to know the exact number of said baskets in order to form his complaint. That in the prior action referred to in the moving papers, the plaintiff formed his complaint for a similar cause of action without a prior examination of defendant's books and without definite knowledge as to the number of baskets made by the said defendant.

A Section of the Gilman Affidavit, Showing the Body to Be in Remington Pica Type and the Words "the same" in Underwood Medium Roman.

so as Executrix I  
e said Hendren is  
said Margaret B. H

Disputed Words, Showing Three Types of Letter.

found in another machine of the same make with the same design of type. Notwithstanding experts said this could occur only once in five hundred times, Professor Snyder figured on the basis that it could occur every other time. This, of course, would make the finding of two machines which could produce identically the words "the same" much more probable. By the law of probability Professor Snyder determined that, disregarding the fact that the same make of machine and the same kind of type must be used, two machines might be found with the identical thirteen defects as shown in the words "the same" just once in 3,500,000,000 times.

To take into consideration the make of machine and the type used, which is very easily determined, we must multiply this number by about one thousand. At the time of the trial there were in existence only 3,600 Underwood machines using medium Roman type, so that the chances of finding two machines with the identical thirteen defects were negligible.

As a matter of fact it was shown at the trial that Mr. Rileys had tried to have an expert mechanic produce defects in the letters of the words "the same" on an Underwood machine to duplicate the defects shown in the document. He was unable to do so. He had borrowed the Court's copy of the affidavit and inserted the words "the same."

He visited a tribe of Indians known as the Chocos. They lived on the southwestern coast of Panama, and Professor Pittier thinks they are descendants of the tribes which inhabited that part of the world when Columbus discovered Santo Domingo. They are tall and stalwart, with kindly natures, a free hospitality and an innate honesty. Few white men have ever been among them. Tribes of a somewhat similar nature are also found on the southeast coast, many of them having never seen a white face in their lives. While the Republic of Panama nominally rules this section, the truth is that these Indians govern themselves entirely, have absolutely no intercourse with the whites, do not allow a white man to visit their lands and still fly the Colombian flag.

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Riley's Copy of Mr. Wickersham's Letter, Showing the Peculiarities of Punctuation.

Lastly, I hereby appoint as Executrix, J. Barnard Walter at present at 110 Schermerhorn Street, Brooklyn, N. Y. and Executrix Caroline E. Raymond, 80 New York Avenue, Brooklyn, N. Y. If deceased the Society will kindly appoint such persons as they desire, and also as Executrix I appoint the said Margaret B. Hendren, but the said Hendren is not to be overruled at any time To the said Margaret B. Hendren I bequeath all my wearing apparel, jewelry, etc.

Photograph of the Address on a Logeman Letter and on an Original Copy of a Telegram in the Logeman Case, Showing That Both Pieces of Work Were Done on the Same Machine.

Mr. Bruce Miller,  
Mr. Bruce Miller,  
3336 Michigan Ave.,  
3336 Michigan Avenue,  
Indiana Harbor, Ind.  
Indiana Harbor, Ind.

Photograph of the Address on a Logeman Letter and on an Original Copy of a Telegram in the Logeman Case, Showing That Both Pieces of Work Were Done on the Same Machine.

Lastly, I hereby appoint as Executrix, J. Barnard Walter at present at 110 Schermerhorn Street, Brooklyn, N. Y. and Executrix Caroline E. Raymond, 80 New York Avenue, Brooklyn, N. Y. If deceased the Society will kindly appoint such persons as they desire, and also as Executrix I appoint the said Margaret B. Hendren, but the said Hendren is not to be overruled at any time To the said Margaret B. Hendren I bequeath all my wearing apparel, jewelry, etc.

A Portion of the Disputed Will, Showing Differences in Type.

In the matter of dates each machine has certain identification marks. They show at what period of life the copy was made. Certain defects are generally noticed first and the nature of the defect gives some clue to the age of the typewriter. Even if a document were written on the machine it purports to be and this machine was on the market at the original date, yet the work of this particular machine at the time the document bears date may not show all or any of the defects appearing in the disputed part, thus proving the typewriting in question was done at a date later than that of the original document.

Another means of identification is found in unevenness of impression, or, as the printers say, when the letters are "off their feet." Typewriter types are not flat, with the exception of two or three manufacturers. They are concave, to fit the round platen of the machine, so if the type strikes the least bit out of position it will produce an uneven impression, too light in one place, too heavy in another.

Promoters of "get rich quick" schemes seem to turn to the typewriter as a simple means to their ends which they believe will protect them from discovery. How far they are from safety because of the typewriter was shown by the Hagley & Logemann case in the United States court.

A concern advertised to promote corporations and float stocks and bonds. To those who answered advertisements the company said that "field men" would be sent all over the country to sell the stocks and bonds. These "field men" were to be paid \$50 a week. After a person had paid a certain amount of money to the company as wages for the stock and bond salesmen he would begin to receive encouraging letters from the firm's New York office and frequent telegrams from towns and cities in all parts of the country.

Before the victim became tired of contributing to the support of the imaginary salesmen he would receive a telegram from W. G. Logemann, the head of the firm, from some distant town, saying that everything was ready for the final deal. All that was necessary was a check for \$100 or more to keep the men in the field and in touch with the subscribers. The sender of the telegram would name some distant town for which he was just leaving and ask that the check be mailed to his office at once. A letter would follow. Sometimes the man whose stock was being floated was so gratified with the prospects of immediate riches that he sent a check for \$200 instead of \$100.

Of course the scheme would have to be short lived, and as a final coup a number of victims received telegrams from the same man on the same date from widely separated towns. This was in order to collect as many checks for \$100 as possible before closing up the business, but it happened that two of the victims compared notes. Other similar cases were discovered and the matter was taken to the courts.

By comparing the typewriting in original copies of the different telegrams and the letters written from the New York office of the firm Mr. Kinsley learned that all were made with the same typewriting machine. The telegrams were written on the machine in New York and mailed to the desired towns for transmission from there.

One telegram was to a victim in a Western State. He had also received a letter, and a comparison of the two names and addresses showed the same defects in the same letters in each piece of work. For instance, the alignment in the name was not good. The final little stroke of the "a" was broken, there was a slight defect in the top of the curve of the lower case b. The upper serif of the capital I was worn down. The capital M printed heavier at the bottom than at the top and the final downward stroke of the d was worn off. There were many other points of identification.

**Forgery of Wills.**

How secure many forgers feel in the use of a typewriter was shown in the case of an altered will, three different machines having been used to make the alterations. A portion of the will in question read:—

"Lastly, I hereby appoint as executor, J. Barnard Walton, at present at 110 Schermerhorn street, Brooklyn, N. Y., and executrix, Caroline E. Raymond, 80 New York Avenue, Brooklyn, N. Y. If deceased the society will kindly appoint such persons as they desire."

Thus far the will seemed to be authentic, but the next sentence was in dispute. It read:— "and also as executrix I appoint the said Margaret B. Hendren, but the said Hendren is not to be overruled at any time."

"To the said Margaret B. Hendren I bequeath all my wearing apparel, jewelry, &c."

which would have shown that the machines were different each typewriter had a differently designed r from either of the others.

It was first shown that the words "and also as executrix I appoint the said Margaret B. Hendren" were written on a different machine from the body of the will, because they were in different type. So was all the part quoted which followed.

In the phrase which appointed Margaret Hendren as executrix the arm of the letter r is almost at right angles to the upright strokes of the r. It does not go any higher than the stem of the r. But if the arm were continued downward in the direction it is pointing the line would cross the base line outside the base of the r—almost in the base of the i in executrix, for instance.

Now the letters r in the words "but the said Hendren is not to be overruled at any time" are entirely different. The arm is not at right angles to the stem and the arm goes higher than the top of the upright stroke. It is not flat.

Take the next sentence, "To the said Margaret Hendren, &c." At first glance the letter r in this sentence seems much like that in the first disputed sentence. The arm is approximately at right angles to the stem, but if the very last stroke of the arm were continued in the direction it is pointing it would intersect the base of the r, or at least join the end of it.

It developed that Miss Hendren, who wrote the will from dictation, made a business of typewriting and owned several machines. The testimony of the experts showed that the clause making her an executrix had been first inserted and then was added the clause making her sole executrix. Later the clause giving her the dead man's jewelry was added. It is not yet known who tampered with the document.

Recently in the United States District Court for the Southern District of New York Thomas P. Riley was tried for copying and furnishing to a magazine for publication a personal and official letter written to United States District Attorney Wise, of New York, by George W. Wickersham, Attorney General of the United States. The letter was written by Mr. Wickersham himself, and in a postscript he said:—

"As I am writing this from my house and have no copy of this will you kindly have your typewriter make and send me a copy?"

**The Riley Case.**

Riley was at this time employed by the Interstate Commerce Commission and was in confidential relations with Mr. Wise. He was selling to magazines information he had obtained about the Sugar Trust before he was employed by the commission, but it was understood that the business of the commission and the District Attorney was confidential.

The original letter, the typewritten copy sent to Mr. Wickersham, and the copy of the letter printed in the magazine were used at the trial. Riley's copy exhibits many peculiarities outside the defects in letters. It is not an accurate copy of the pen written letter, and the same discrepancies occur in the copy sent to Mr. Wickersham and the copy in the magazine.

Mr. Wickersham's letter was headed, "Sunday, 6-27-00," but Riley's copy was headed "Washington, 6-27-00."

The original letter had a comma after "My Dear Sir," but the copy had a semicolon and dash, which is very unusual, and was a habit with Riley. He also used this punctuation after the word "authenticated" in the body of the letter, although the original letter called only for a dash. The use of a comma with a dash was also a personal habit which he could not overcome.

Another point was that where Riley divided his words at the end of a line he used a hyphen after the syllable at the end of one line and a hyphen before the syllable of the next line. This is never done by expert typists in the United States, although it is done in Europe and in Canada. Riley was educated in Canada.

All the mistakes made by the man who copied the letter were characteristic of Riley, and he used a capital I for the numeral 1 instead of using the lower case i as most persons do. That was another habit of his. He finally admitted that he copied the letter.

In this case the mechanical defects of a machine were backed up by certain human elements or traits; this makes the task of identification much simpler. In cases where only a few words have been inserted or changed the thing is not so easy, but in a lengthy document it is quite likely that certain habits or characteristics of the person who did the work will show themselves to aid in tracing the origin of the copy.



CHOCOS INDIANS ORIGINAL PANAMANS.

They are tall and stalwart, with kindly natures, a free hospitality and an innate honesty. Few white men have ever been among them. Tribes of a somewhat similar nature are also found on the southeast coast, many of them having never seen a white face in their lives. While the Republic of Panama nominally rules this section, the truth is that these Indians govern themselves entirely, have absolutely no intercourse with the whites, do not allow a white man to visit their lands and still fly the Colombian flag.

Their houses are grass huts, their clothing is almost nothing, but they seem to enjoy life in spite of the fact that they are not allowed to visit their lands and still fly the Colombian flag.

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